

THE EVOLUTION OF EUROPEAN ENVIRONMENTAL POLICY AND THE TRANSITION TO THE SUSTAINABLE DEVELOPMENT MODEL

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Abstract

The aim of the present study is to investigate European environmental and sustainable development policy as it has evolved from 1972 to the present, through Environmental Action Programmes and successive Treaties.

The currently applicable 8th Environment Action Programme (2022–2030) establishes priorities such as the reduction of emissions, the circular economy, biodiversity protection, and the achievement of zero pollution.

The fundamental principles of European law—prevention, precaution, restoration, and the “polluter pays” principle—provide the framework for environmental legislation, while the relationship between the economy and the environment is acknowledged as integral to sustainable development.

The study concludes by identifying ways in which the new economic model can be implemented across the main sectors of the market.

Key words: *New development model, European environmental legislation, European policy, green economy, sustainability, sustainable production, biodiversity.*

1.1 Global Environmental Problems Requiring the Adoption of a New Development Model

The loss of biodiversity, combined with climate change, currently constitutes the most serious environmental problems facing the planet (Kallia-Antoniou, 2011). Global warming and the depletion of natural resources, which are a prerequisite for all forms of life and development, represent the greatest risks that humanity is called upon to confront today (FAO, 2001; WWF, 2007). The Earth’s natural systems regulate both non-renewable and renewable natural resources. The impacts of the overexploitation of natural resources are initially felt at the local level; however, the increasing interdependence of states and the expansion of international trade render their management an issue of global concern (Turner, 1993; UNEP, 2008).

The conservation of biodiversity in all its dimensions—including the diversity of ecosystems, animal and plant species, and genes—is inextricably linked to the security of human life (IUCN/UNEP/WWF, 1991). Biodiversity constitutes our natural capital and provides the ecosystem services upon which the economy depends (TEEB, 2010). Economic prosperity and human well-being rely on this natural capital and on ecosystems, which supply fundamental goods and services (Myers and Kent, 2001). The development model adopted in the past treated ecosystem services as inexhaustible, wasting them, degrading them, or

polluting them as if they were “free” goods (Kallia-Antoniou, 1995). This policy, which has not yet been fully abandoned, threatens long-term sustainability and the planet’s resilience to environmental crises (WWF, 2007). The degradation and loss of biodiversity jeopardize the provision of these services and lead to the loss of species and habitats (FAO, 2001).

It should be noted that global demand for natural resources has increased dramatically in recent decades and is expected to continue rising in the future (UNEP, 2011). This trend is mainly attributable to population growth, increasing wealth, and rising consumption levels (Kallia-Antoniou, 2011). The most significant population growth is observed in developing countries, whereas the highest levels of wealth and consumption are found in developed countries (OECD, 2005).

Global consumption has significant and irreversible impacts on global ecosystems. Indicatively, approximately 130,000 square kilometres of tropical forest are deforested each year, while from 1960 to the present, one third of the world’s cultivated land has been abandoned or exhausted as a result of overexploitation and soil degradation (World Resources Institute, 2011). The current rate of species loss is estimated to be between one hundred and one thousand times higher than the natural background rate, primarily as a result of human activities (WWF, 2007).

According to the Food and Agriculture Organization of the United Nations (FAO, 2001):

- 60% of the world’s ecosystems are degraded or used in a manner contrary to the principles of sustainability,
- 75% of fish stocks are overexploited or depleted to the point of exhaustion,
- Since 1990, 75% of the genetic diversity of cultivated plants has been lost worldwide,
- 13 million hectares of tropical forests are deforested annually,
- 20% of the world’s coral reefs have already disappeared and, unless climate change is mitigated, 95% are at risk of destruction or severe damage by 2050.

1.2 Addressing Problems at the European Level

Within the European Union (EU), despite the measures that have been adopted to address biodiversity loss, only 17% of habitats and species and 11% of ecosystems protected under EU legislation are currently in a favourable conservation status (European Commission, 2011). Legislative measures for the protection of biodiversity and species have been implemented in the EU since the late 1970s, while in 2001 a target was set to halt biodiversity loss by 2010 (Kallia-Antoniou, 2011). However, the benefits of conservation measures have been outweighed by the ongoing and intensifying pressures on biodiversity, namely land-use change, overexploitation of natural resources, the spread of invasive alien species, pollution, and climate change (UNEP, 2008).

At the same time, biodiversity is further affected by population growth, limited public information, knowledge, and awareness, as well as by the fact that the economic value of biodiversity is not adequately reflected in decision-making processes, despite the significant economic value of biodiversity and the ecosystem services it provides, which is rarely assessed (TEEB, 2010). The ecological footprint quantifies humanity’s demands on the planet’s ecosystems. It measures the terrestrial and marine area required to produce the resources consumed and to absorb the corresponding waste generated (European Environment Agency, 2010). In 2003, the ecological footprint of the European Union amounted to 2.26 billion global hectares, or 4.7 global hectares per capita. In contrast, the total productive area of the EU was 1.06 billion global hectares, or 2.2 global hectares per capita (European Environment Agency, 2010). “If people around the world lived like Europeans, humanity would require more than two and a half planets like Earth to provide the resources consumed, absorb the waste produced, and still leave some ‘space’ for wildlife” (Kallia-Antoniou, 2011). As a result of the continuously expanding global trade, an increasing share of the

environmental pressures caused by consumption in EU countries is felt outside Europe (Myers and Kent, 2001). In this sense, the European Union exports the environmental impacts of its consumption to countries where environmental policies are often inadequate, thereby placing additional burdens on local populations and their environments (OECD, 2005).

It is now widely acknowledged that identifying the most effective solutions to these problems requires a coordinated approach at both the European and international levels (UNEP, 2011). To address the current situation, the model of sustainable development is proposed, the principles of which govern each sector of human activity individually as well as their combined interactions (WCED, 1987). The concept of sustainable development has engaged Europe's scientific and political communities since the 1990s, when relevant strategies and measures were adopted (Kallia-Antoniou, 2011). Today, sustainable development is regarded as a necessary precondition for survival and is increasingly integrated into every action and policy (ICLEI, 1994).

2.1 The Concept of Sustainable Development

The concept of sustainable development is synonymous with that of sustainability, the main characteristic of which is continuity over time, with its primary objective being the assurance of quality of life across all sectors—environmental, economic, cultural, and others—for everyone, now and in the future (WCED, 1987; Kallia-Antoniou, 2011). Today, this term has transcended a strictly environmental framework. More specifically, it refers to environmental factors in combination with economic, social, cultural, and other dimensions, aiming at their harmonious coexistence both in the present and in the future, within a continuous and sustainable model (IUCN/UNEP/WWF, 1991; UNEP, 1996).

In the early 1980s, humanity began to recognize the global reality shaped by emerging ecological problems and rising unemployment in economically developed countries (Turner, 1993). On the one hand, it became evident that natural resources are not inexhaustible; on the other, nature itself is not capable of continuously offsetting the disturbances caused by economic development (WCED, 1987). Consequently, the international community turned toward a new policy approach, that of sustainable development. In 1983, the establishment of a World Commission on Environment and Development was decided, chaired by Gro Harlem Brundtland, former Prime Minister of Norway (WCED, 1987). This was followed by the publication of the Brundtland Report in 1987, *Our Common Future* (WCED, 1987). The report provided a clear and concise definition of sustainable development: development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). The text emphasized that prevailing conditions require the “marriage” of economics and ecology, so that governments and citizens assume responsibility not only for environmental damage, but also for the policies that lead to such damage (WCED, 1987; Kallia-Antoniou, 2011).

The Brundtland Report also stated that there is no single ideal model of sustainable development, since social, economic, and environmental conditions vary from country to country (WCED, 1987). Nevertheless, sustainable development must constitute a goal to be pursued at the global level (Kallia-Antoniou, 2011). The Rio Earth Summit in 1992 placed sustainable development at the forefront of global priorities, stating in the Rio Declaration on Environment and Development that “human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature” (UN, 1992). At the same time, Agenda 21 was adopted as the first strategic plan for the implementation of a global environmental policy within the framework of sustainable development (UN, 1992).

In 1994, the Charter of European Cities and Towns Towards Sustainability, known as the Aalborg Charter, was adopted, establishing the concept of the sustainable city through the

integration of the principles of sustainable development, economic efficiency, social progress, and environmental protection into urban policies (Charter of European Cities & Towns Towards Sustainability, 1994). At the same time, sustainable development was gradually adopted by states through the implementation of United Nations policies and those of its specialized agencies (FAO, UNICEF, UNDP, UNEP, WHO, World Bank), as well as by the Organisation for Economic Co-operation and Development (OECD, 2005).

For a more comprehensive presentation of the concept of sustainable development, some of the most widely accepted definitions are presented below:

- “Sustainable development: development that does not reduce productive capacity in the future” (OECD, 1990).
- “Sustainable development: improving the quality of human life while living within the carrying capacity of the ecosystems that support life on Earth” (IUCN/UNEP/WWF, 1991).
- “Sustainable development: development that respects the environment, is technologically appropriate, economically viable, socially acceptable, and meets the needs of the present generation without jeopardizing the ability of future generations to meet their own needs” (UNEP, 1996).

Sustainable development is based on three core components: the environment, the economy, and society (Kallia-Antoniou, 2011). Its objective is the fullest possible integration of the natural environment into decision-making processes and the examination of interactions between socio-economic and environmental factors involved in these processes (Zagorianakos, 2002). According to IUCN (IUCN/UNEP/WWF, 1991), the objectives of sustainable development are as follows:

- improving the quality of human life,
- avoiding the depletion of non-renewable resources,
- living within the Earth’s carrying capacity,
- transforming personal attitudes and practices,
- enhancing the capacity of societies to care for their own environment,
- promoting national frameworks for development and environmental protection, to be achieved through:
 - recognition of the fact that every system affects, and is affected by, larger or smaller systems,
 - linking economic policy to the environmental carrying capacity,
 - increasing the benefits derived from resource stocks,
 - promoting technologies that use resources more efficiently, and
 - ensuring appropriate valuation and pricing of resources.

Finally, sustainable development requires the creation of a global alliance, as the protection of global resources can only be achieved through cooperation and coalition-building among nations (IUNC, 1991; Kallia-Antoniou, 2011; UNEP, 2008).

2.2 The Concept of Sustainable Development at the Local Level

2.2.1 Local Development

The term local development refers to the achievement of one or more positive changes in the fundamental components of the socio-economic activities of people (Coffey and Polese, 1985). Coffey and Polese note that local development concerns both a specific spatial unit and any event, activity, or process that is initiated by, or supported by, the population of that spatial unit (Coffey and Polese, 1985). The concept of local development should not be equated with the development of a specific geographical area per se, but rather with development that is based on local factors. In local development processes, the primary

driving forces are local actors, including local organizations and institutions, local enterprises, local initiatives, and entrepreneurship (Blakely, 1994; Papadaskalopoulos, 1995).

Local factors include the geographical and natural characteristics of spatial units (local natural comparative advantages, natural resources, mineral wealth, etc.), as well as the socio-cultural characteristics of local production related to the development process (Gatel and Passaris, 1986). Thus, spatial units with local disadvantages may promote their development through the utilization of know-how and the enhancement of local entrepreneurial activity. Through local development, new institutions are created, alternative activities are developed, workers' skills are improved in order to produce higher-quality products and services, new markets are identified, knowledge is transferred, and new entrepreneurial activities emerge (Blakely, 1994). Local development is observed more intensively in degraded zones, disadvantaged areas, as well as during periods of crisis (Coffey and Polese, 1985).

2.2.2 Local Sustainable Development

Within this framework, sustainable development is closely linked to the process of local development (ICLEI, 1994). This view is supported by the definition of sustainable development formulated by the International Council for Local Environmental Initiatives (ICLEI), which provides a more practical interpretation of sustainable development at the local level: "Sustainable development is development that delivers basic environmental, social, and economic services to all residents of a community without threatening the viability of the natural, built, and social systems upon which the provision of these services depends" (ICLEI, 1994).

According to Agenda 21, sustainable development cannot be achieved through traditional decision-making processes (UN, 1992). An environmental strategy can only have limited effectiveness if it does not ensure the active participation of citizens, a high level of awareness, environmental consciousness, responsibility, and "alternative" patterns of behaviour, both as producers and as consumers (UNEP, 1996; Kallia-Antoniou, 2011).

In this context, Local Government, as the level of administration closest to citizens, plays a decisive role in education and in raising public awareness for the achievement of sustainability. For this reason, local authorities worldwide proceeded with the adoption of Agenda 21 and developed their own Local Agenda 21, which primarily constitutes a strategic process for the planning and implementation of appropriate actions leading toward sustainability, with the participation of all social stakeholders at the local level (ICLEI, 1994; UN, 1992).

2.3 International and European Policy for the Promotion of Sustainable Development

2.3.1 The Legal Concept of Sustainable Development

According to its legal interpretation, sustainable development constitutes a restorative and comprehensive policy, namely a unified set of public policies aimed at restoring balance both among all types of human-made systems and among the planet's ecosystems (Dekleris, 2000; Kallia-Antoniou, 1999). More specifically, through this system of restorative public policies, the following objectives are pursued (Kallia-Antoniou, 2011):

- (a) the elevation of intangible spiritual and intellectual legal values over material ones;
- (b) the preservation of cultural heritage;
- (c) the autonomy of education;
- (d) the consolidation of genuine social justice; and
- (e) the prevention of further degradation of natural capital, so that it may be transferred intact to future generations (Dekleris, 2000).

The principles of sustainable development have been adopted and further elaborated in the case law of the Greek Council of State (Supreme Administrative Court) and the Court of Justice of the European Union (CJEU) (Kallia-Antoniou, 1999; Kallia-Antoniou, 2011).

2.3.1.1 Principles of Sustainable Development

Sustainable development is qualitative and controlled in nature. It is governed by a set of general principles whose ultimate purpose is to regulate the simultaneous evolution of human-made systems and natural ecosystems (Kallia-Antoniou, 2011).

1. Principle of Public Ecological Order

The principle of public ecological order establishes the mandatory nature of state control aimed at serving the general interest, not only of the present generation but also of future generations. Sustainable development is not left to market forces; rather, it constitutes a responsibility of the state (Dekleris, 2000; Kallia-Antoniou, 2011).

This principle was established by the Stockholm Declaration (1972) through the following provisions (UN, 1972):

- Principle 17: “Appropriate national institutions must be entrusted with the task of planning, managing, and controlling the environmental resources of States, with a view to enhancing their quality.”
- Principle 18: “Science and technology must be applied to the identification, avoidance, and control of environmental risks and to the solution of environmental problems for the common good of mankind.”

2. Principle of Sustainability

The principle of sustainability requires the harmonization of all public policies and prohibits any further reduction or degradation of natural capital. This principle is enshrined in the Stockholm Declaration (1972) (UN, 1972):

- Principle 2: “The natural resources of the Earth, including the air, water, land, flora and fauna, and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management.”
- Principle 5: “The non-renewable resources of the Earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that the benefits of such employment are shared by all mankind.”
- Principle 8: “Economic and social development is essential for ensuring a favourable living and working environment for humanity and for improving the quality of life.”

The principle of sustainability received its formal definition in the Rio Declaration (1992) (UN, 1992):

- Principle 3: “The right to development must be fulfilled so as to equitably meet the developmental and environmental needs of present and future generations.”

3. Principle of Carrying Capacity

This principle requires respect for the carrying capacity of both human-made systems and natural ecosystems (Kallia-Antoniou, 2011).

The principle is first proclaimed in the Stockholm Declaration with reference to the productive capacity of the Earth (UN, 1972):

- Principle 3: “The capacity of the Earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved.”

The same principle is reaffirmed in relation to pollution:

- Principle 6: “The discharge of toxic substances or other substances and the release of heat in such quantities or concentrations as to exceed the capacity of the environment

to render them harmless must be halted in order to prevent serious or irreversible damage to ecosystems" (UN, 1972).

4. Principle of Mandatory Restoration of Disturbed Ecosystems

This principle requires the correction of environmental damage wherever still feasible, namely the restoration of disturbed ecosystems, in order to prevent the reduction of natural capital (Kallia-Antoniou, 2011; Dekleris, 2000).

5. Principle of Biodiversity

This principle demands the protection of biodiversity in order to maintain ecosystem balance. It is incorporated in Article 3 and related provisions of the Bern Convention on the Conservation of European Wildlife and Natural Habitats (Council of Europe, 1979).

6. Principle of Common Natural Heritage

The principle of common natural heritage is enshrined in Article 4 of the Paris Convention (UNESCO, 1972), where it is linked to the protection of World Cultural Heritage. The same principle is also proclaimed in the Stockholm Declaration (UN, 1972):

- Principle 4: "Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat, which are now gravely imperilled by a combination of adverse factors. Nature conservation, including wildlife, must therefore receive importance in planning for economic development."

7. Principle of Gentle Development of Vulnerable Ecosystems

This principle requires mild and carefully controlled development of fragile ecosystems (Kallia-Antoniou, 2011).

8. Principle of Spatial Planning (Land-Use Planning)

The principle of spatial planning is explicitly articulated in the Stockholm Declaration (UN, 1972), which advocates integrated development through rational planning:

- Principle 13: "In order to achieve more rational management of resources and thus improve the environment, States should adopt an integrated and coordinated approach to development planning to ensure that development is compatible with the need to protect and improve the environment for the benefit of their population."
- Principle 14: "Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment."

9. Principle of Cultural Heritage

The principle of cultural heritage is summarized in Article 3 of the Granada Convention for the Protection of the Architectural Heritage of Europe (Council of Europe, 1985).

10. Principle of the Sustainable Urban Environment

This principle seeks to address the problems of modern settlements and improve quality of life in cities. It is proclaimed in the Stockholm Declaration (UN, 1972):

- Principle 15: "Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic, and environmental benefits for all."

11. Principle of the Aesthetic Value of Nature

This principle promotes qualitative development and the satisfaction of the aesthetic needs of human beings through the preservation of natural beauty (Kallia-Antoniou, 2011).

12. Principle of Ecological Awareness

The final principle establishes sound value systems and ecological awareness among individuals as the ultimate guarantee of the entire framework of sustainable development. The principle is articulated in the Stockholm Declaration (UN, 1972):

- Principle 19: “Education in environmental matters, for the younger generation as well as adults, with particular attention to the less privileged, is essential in order to broaden the basis for enlightened public opinion and responsible conduct by individuals, enterprises, and communities in protecting and improving the environment.”
- Principle 20: “Scientific research and development in relation to environmental problems, both national and multinational, must be promoted in all countries, especially developing countries. The free flow of up-to-date scientific information and the transfer of experience must be supported and facilitated in order to assist in the solution of environmental problems. Environmental technologies should be made available to developing countries under conditions that encourage their wide dissemination and do not impose an economic burden upon them.”

Based on these principles, which together constitute the model of a sustainable society, both general and specific solutions are designed to address corresponding environmental and socio-economic challenges (Kallia-Antoniou, 2011).

2.3.2 International Policy

The World Summit on Sustainable Development, held in Johannesburg (26 August – 4 September 2002), constitutes the culmination of the earlier Stockholm Conference on the Human Environment (1972) and the Rio Conference on Environment and Development (1992), which introduced the principle of sustainable development (UN, 1972; UN, 1992; Kallia-Antoniou, 2011).

The United Nations Conference on Sustainable Development held in Rio de Janeiro in 2012 (also known as Rio+20) focused on strengthening sustainable development and promoting the “green economy” through the integration of environmental and social objectives into economic growth. The main outcomes included a commitment to adopting the green economy model and the recognition that sustainable development is an achievable goal rather than an abstract concept, alongside the signing of various action-oriented agreements (UN, 2012).

Key conclusions of the Conference included:

- **Strengthening the green economy:** Emphasis was placed on adopting a green economy model aimed at integrating environmental, social, and economic dimensions of development (UN, 2012).
- **Integration of the three pillars:** The need for balanced integration of the economic, social, and environmental pillars of sustainable development was acknowledged (UN, 2012).
- **Recognition of sustainable development as an attainable goal:** The Conference reaffirmed that sustainable development is a realistic and feasible objective (UN, 2012).
- **Commitment to action:** Agreements and commitments were undertaken by 192 UN Member States to promote sustainable development and address global environmental challenges (UN, 2012).

United Nations Resolution: “Transforming our World: the 2030 Agenda for Sustainable Development”

In September 2015, UN Member States adopted the 2030 Agenda for Sustainable Development, emphasizing that the 17 Sustainable Development Goals (SDGs) and their 169 targets are integrated and indivisible, balancing the economic, social, and environmental dimensions of sustainable development (UN, 2015). The Agenda provides a holistic vision for the well-being of people and the planet, centered on equality and resilience.

It constitutes the only universally accepted and universally applicable framework for evidence-based global policymaking during this critical decade. The interlinkages and integrated nature of the SDGs are essential for the effective implementation of the 2030 Agenda. In light of the COVID-19 pandemic, the SDGs offer a unique framework for recovery and for “building back better”, namely for constructing a more just and resilient world that prospers within planetary boundaries while leaving no one behind (UN, 2015; Kallia-Antoniou, 2021).

2.3.3 European Policy – Institutional Framework

A significant proportion of the environmental legislation applied in EU Member States originates from European Union regulations and rules. Environmental protection within the EU is institutionalized through both primary and secondary EU law (European Commission, 2022). Today, European environmental policy covers almost all environmental sectors.

In 1972, at the Paris Summit, EU Member States agreed to prioritize environmental protection and requested the European Commission to develop an Environmental Action Programme (European Commission, 1973). In 1973, the first Environmental Action Programme (1973–1976) was adopted. Subsequently, environmental protection became increasingly central to EU policy priorities, with successive Action Programmes adopted in 1977, 1983, 1987, 1992, 2002, 2014, and 2022 (European Commission, 2022).

Currently, the **Eighth Environment Action Programme (2022–2030)** is in force, establishing the main priorities and strategic directions for environmental policy and the promotion of sustainable development (European Commission, 2022).

Priority objectives of the 8th Environment Action Programme

- Achieving the 2030 greenhouse gas emission reduction targets and climate neutrality by 2050 (European Commission, 2022).
- Enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change (European Commission, 2022).
- Transitioning towards a regenerative growth model by decoupling economic growth from resource use and environmental degradation, accelerating the shift to a circular economy (European Commission, 2022).
- Achieving zero pollution of air, water, and soil and protecting human health and well-being (European Commission, 2022).
- Protecting, conserving, and restoring biodiversity, improving ecosystem conditions, and combating desertification and land degradation (European Commission, 2022).
- Reducing environmental and climate pressures arising from production and consumption, particularly in the sectors of energy, industry, buildings and infrastructure, mobility, and food systems (European Commission, 2022).

2.3.3.1 Treaties

Explicit reference to environmental protection in the EU Treaties was first made in 1992. The gradual integration of environmental policy into EU primary law is reflected in the following Treaties (European Commission, 2022; Kallia-Antoniou, 2011):

Single European Act (1987)

Introduced specific provisions on environmental protection and assigned responsibility for environmental policy to the European Community (European Commission, 1987).

Treaty of Maastricht (1993)

Elevated environmental policy to an official EU policy area, established the objective of a high level of environmental protection, introduced the prevention principle, and required the integration of environmental considerations into other sectoral policies. Environmental decision-making by qualified majority voting was also introduced (European Commission, 1993).

Treaty of Amsterdam (1997)

Further expanded environmental objectives, incorporated sustainable development into the EU's core objectives, and recognized environmental protection as a fundamental policy priority (European Commission, 1997).

Treaty of Lisbon (2009)

Entered into force in December 2009. Articles 191–193 TFEU define EU environmental policy objectives, while Article 21 TEU establishes sustainable development as a binding objective of EU external action, including relations with developing countries (European Commission, 2009).

2.3.3.2 Principles

The EU Treaties enshrine the following fundamental principles governing European environmental law (European Commission, 2022; Kallia-Antoniou, 2011):

- **Prevention principle:** Environmental damage should be prevented rather than remedied after occurrence.
- **Restoration principle:** Environmental damage must be remedied and ecosystems restored when preventive measures fail.
- **Precautionary principle:** Preventive action must be taken even in the absence of full scientific certainty where serious risks are identified.
- **Carrying capacity principle:** Ecosystems have limits beyond which irreversible damage occurs.
- **Integration principle:** Environmental protection must be integrated into all EU policies (Article 6, Amsterdam Treaty) (European Commission, 1997).
- **Polluter pays principle:** The cost of environmental damage restoration is borne by the party responsible.

The above principles are further specified through the adoption of Directives, Regulations, and Decisions, which are incorporated into Member States' legislation to create an effective institutional framework for environmental protection and the promotion of sustainable development (European Commission, 2022). Environmental Directives issued over the past five decades cover a broad range of topics, including provisions regarding air and water quality, noise control, wildlife and habitat conservation, waste management and recycling, protection against hazardous substances and industrial accidents, regulation of biotechnology, as well as general issues such as environmental impact assessment, public access to environmental information, environmental inspections and liability, eco-labeling of products, and environmental standards. Of particular importance are Directive 92/43 on natural habitats and Directive 79/409, also known as the Birds Directive, which aim to ensure the rational use of Europe's natural environment (European Commission, 1992; European Commission, 1979).

Given that only five years remain to achieve the Sustainable Development Goals (SDGs) set out in the 2030 Agenda, it is imperative for the EU to intensify its global efforts to achieve all 17 SDGs (UN, 2015; European Commission, 2022). To this end, the EU report focuses on

the tools currently available to the EU to contribute to the global implementation of the SDGs. Rather than concentrating on specific SDG targets and the progress made to date, the report identifies remaining gaps and challenges and explores opportunities that will support the EU's global efforts to achieve all 17 SDGs by 2030 (European Commission, 2022).

Long-term planning alone is no longer sufficient to achieve the SDGs; urgent action is now required. Despite significant efforts to map EU progress on the SDGs, the EU has not yet fully assumed a leading role in the global effort to achieve all 17 SDGs. Therefore, better implementation is needed, requiring more coherent funding and, above all, stronger leadership both within the EU and internationally. As highlighted by the milestone European Green Deal, sustainable development lies at the core of the EU's identity. The EU has taken a leading role in the revision of the Millennium Development Goals (MDGs) and in negotiations for the 2030 Agenda. Article 3 of the Treaty on European Union commits the EU to promoting sustainable development in Europe, while Article 21 explicitly establishes that the EU promotes sustainable development beyond its borders, including in developing countries (European Commission, 2019; UN, 2015).

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